

JOINT
PUBLIC NOTICE

CHARLESTON DISTRICT, CORPS OF ENGINEERS
69A Hagood Avenue
Charleston, South Carolina 29403-5107
and the
S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
OFFICE OF OCEAN AND COASTAL RESOURCE MANAGEMENT
1362 McMillan Avenue, Suite 400
Charleston, South Carolina 29405

REGULATORY DIVISION
Refer to: P/N # 2006-1883-2IR-C

August 11, 2006

Pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403), Sections 401 and 404 of the Clean Water Act (33 U.S.C. 1344), and the South Carolina Coastal Zone Management Act (48-39-10 et.seq.) an application has been submitted to the Department of the Army and the S.C. Department of Health and Environmental Control by

CAROLINA PATH, LLC
(WATERLOO ESTATES)
54 TRADD STREET
CHARLESTON, SOUTH CAROLINA 29401

for a permit to place fill material in freshwater wetlands adjacent to

BURDEN CREEK AND THE STONO RIVER

at a location on River Road just south of Kroger Road on Johns Island, Charleston County, South Carolina (Latitude: 32.7230; Longitude: 80.0371).

In order to give all interested parties an opportunity to express their views

NOTICE

is hereby given that written statements regarding the proposed work will be received by both of the above mentioned offices until

12 O'CLOCK NOON, MONDAY, SEPTEMBER 11, 2006

from those interested in the activity and whose interests may be affected by the proposed work.

The proposed work consists of placing approximately 728.1 cubic yards of fill material in approximately 0.586 acres of freshwater wetlands, with 0.048 acres of swale excavation for construction of infrastructure and a 43-lot single family estate subdivision. As mitigation for the proposed impacts, the applicant proposes to preserve the remaining 44.307 acres of on-site wetlands and 8.903 acres of upland buffers. The applicant is requesting a variance with the requirements to provide direct enhancement and restoration credit. The purpose of the proposed work is for a single family residential development.

NOTE: Plans depicting the work described in this notice are available and will be provided, upon receipt of a written request, to anyone that is interested in obtaining a copy of the plans for the specific project. The request must identify the project of interest by

public notice number and a self-addressed stamped envelope must also be provided for mailing the drawings to you. Your request for drawings should be addressed to the

**U.S. Army Corps of Engineers
ATTN: REGULATORY DIVISION
69A Hagood Avenue
Charleston, South Carolina 29403-5107**

The District Engineer has concluded that the discharges associated with this project, both direct and indirect, should be reviewed by the South Carolina Department of Health and Environmental Control in accordance with provisions of Section 401 of the Clean Water Act. As such, this notice constitutes a request, on behalf of the applicant, for certification that this project will comply with applicable effluent limitations and water quality standards. The work shown on this application must also be certified as consistent with applicable provisions the Coastal Zone Management Program (15 CFR 930). The District Engineer will not process this application to a conclusion until such certifications are received. The applicant is hereby advised that supplemental information may be required by the State to facilitate the review.

This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. Implementation of the proposed project would impact 0.634 acres of freshwater wetlands located upstream of estuarine substrates and emergent wetlands utilized by various life stages of species comprising the red drum, shrimp, and snapper-grouper management complexes. Our initial determination is that the proposed action would not have a substantial individual or cumulative adverse impact on EFH or fisheries managed by the South Atlantic Fishery Management Council and the National Marine Fisheries Service (NMFS). Our final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the NMFS.

Pursuant to Section 7(c) of the Endangered Species Act of 1973 (as amended), the District Engineer has consulted the most recently available information and has determined that the project is not likely to adversely affect any Federally endangered, threatened, or proposed species or result in the destruction or adverse modification of designated or proposed critical habitat. This public notice serves as a request for written concurrence from the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service on this determination.

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), this public notice also constitutes a request to Indian Tribes to notify the District Engineer of any historic properties of religious and cultural significance to them that may be affected by the proposed undertaking.

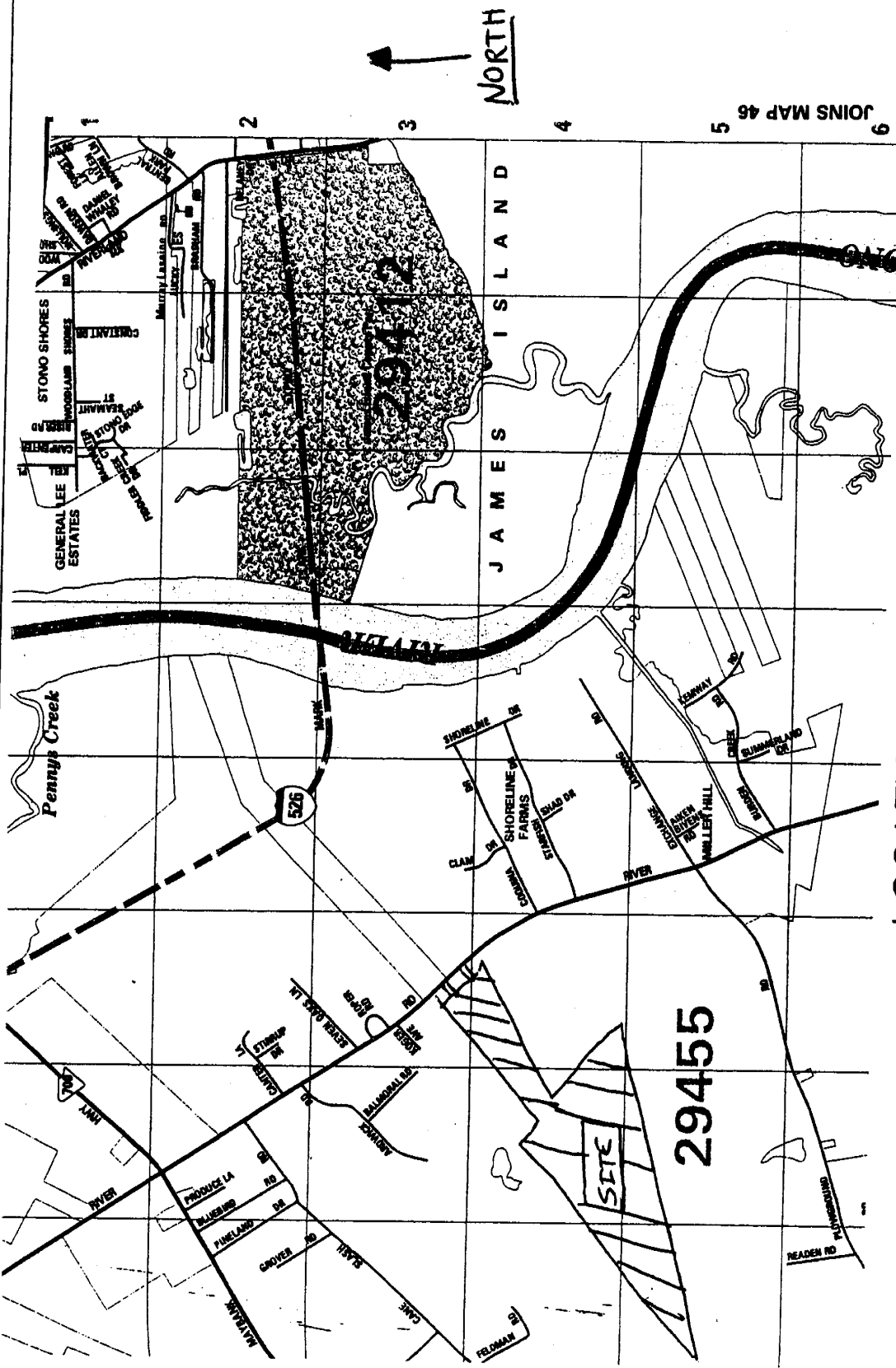
In accordance with the NHPA, the District Engineer has also consulted the latest published version of the National Register of Historic Places for the presence or absence of registered properties, or properties listed as being eligible for inclusion therein, and this worksite is not included as a registered property or property listed as being eligible for inclusion in the Register. To insure that other cultural resources that the District Engineer is not aware of are not overlooked, this public notice also serves as a request to the State Historic Preservation Office to provide any information it may have with regard to historic and cultural resources.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for a public hearing shall state, with particularity, the reasons for holding a public hearing.

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the activity on the public interest and will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency (EPA), under authority of Section 404(b) of the Clean Water Act and, as appropriate, the criteria established under authority of Section 102 of the Marine Protection, Research and Sanctuaries Act of 1972, as amended. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the project must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the project will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production and, in general, the needs and welfare of the people. A permit will be granted unless the District Engineer determines that it would be contrary to the public interest. In cases of conflicting property rights, the Corps of Engineers cannot undertake to adjudicate rival claims.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this project. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the activity.

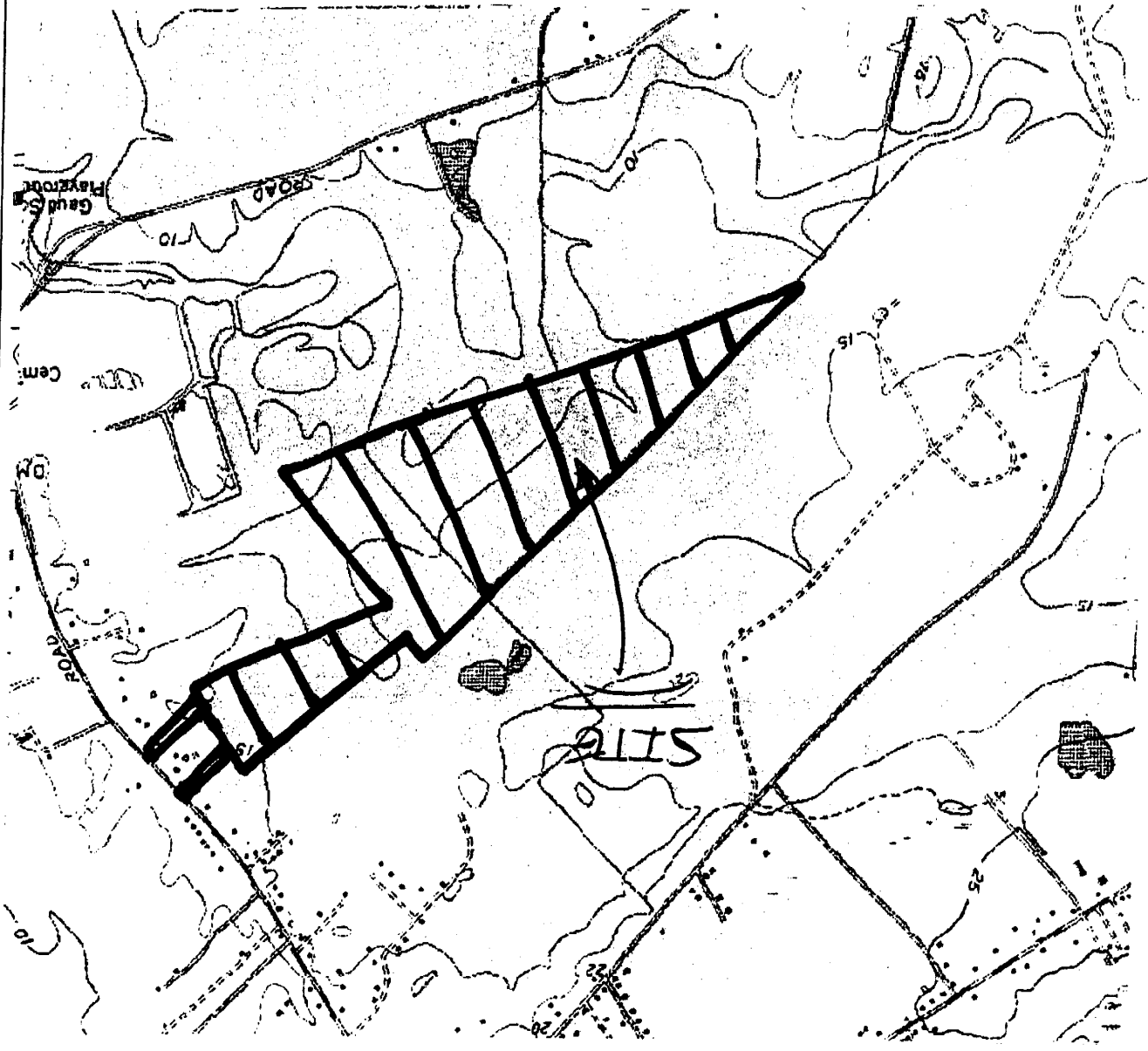
If there are any questions concerning this public notice, please contact Robin Collier-Socha at 843-329-8044 or toll free at 1-866-329-8187.



PERMIT NO. 2006-1883-2 IR-C
 PROJECT TITLE: WATERLOO ESTATES
 APPLICANT: CAROLINA PATH, LLC
 COUNTY: CHARLESTON
 DATE: 7/21/06
 SCALE: NTS
 SHEET NO. 1

PERMIT NO. 2006-1883-2IR-C
PROJECT TITLE: WATERLOO ESTATES
APPLICANT: CAROLINA PATH, LLC
COUNTY: CHARLESTON
DATE: 7/21/06
SCALE: NTS
SHEET NO. 1A

NORTH
↓



WATERLOO PLANTATION, LLC.

TMS NO. 315-00-00-018

7,011,479 SOFT

7,011,479 SOFT (TOTAL)

160,961 ACRES (TOTAL)

115,256 ACRES HIGH

44,941 ACRES WET

0.764 ACRES (WATERS OF THE US)

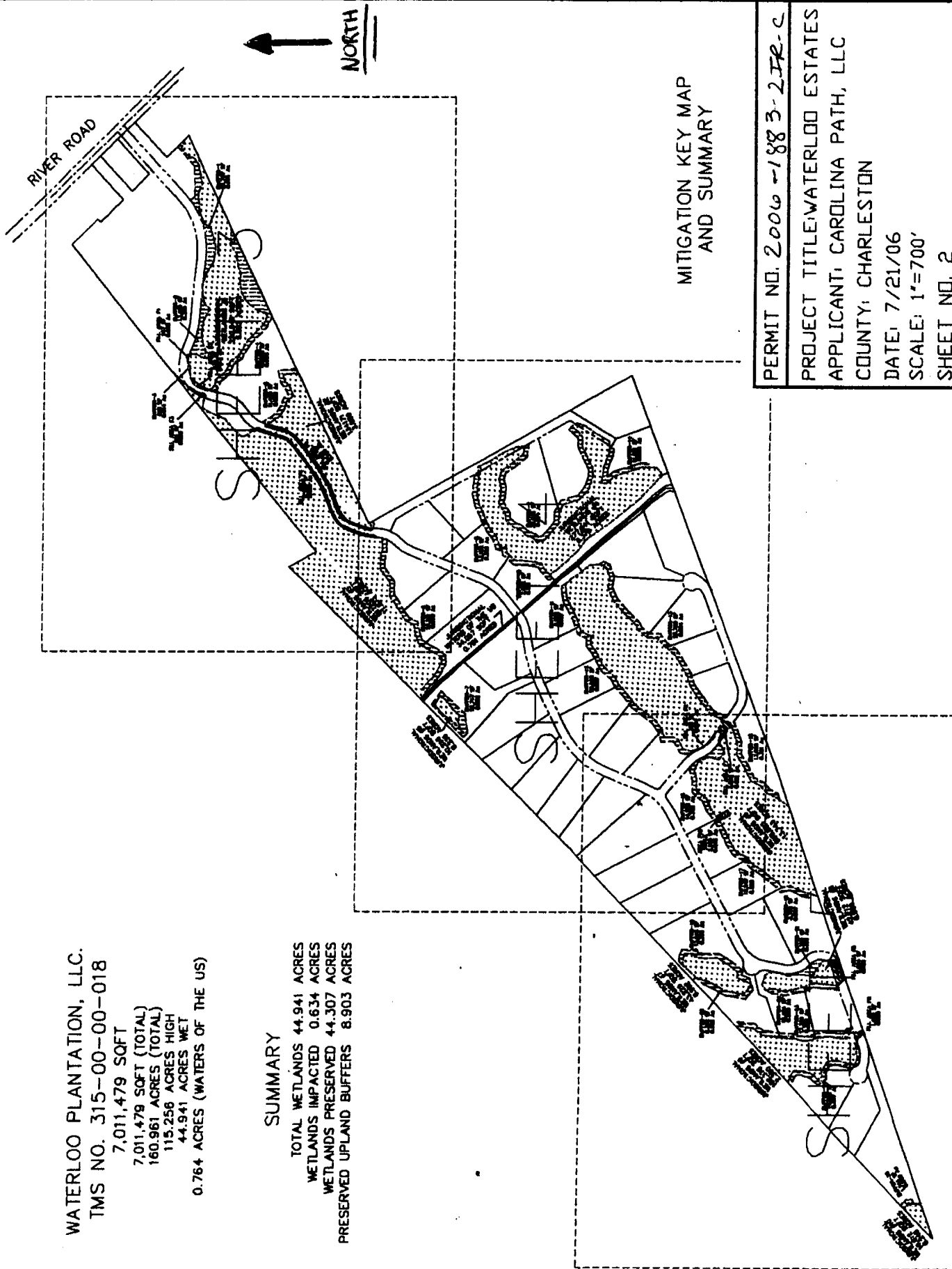
SUMMARY

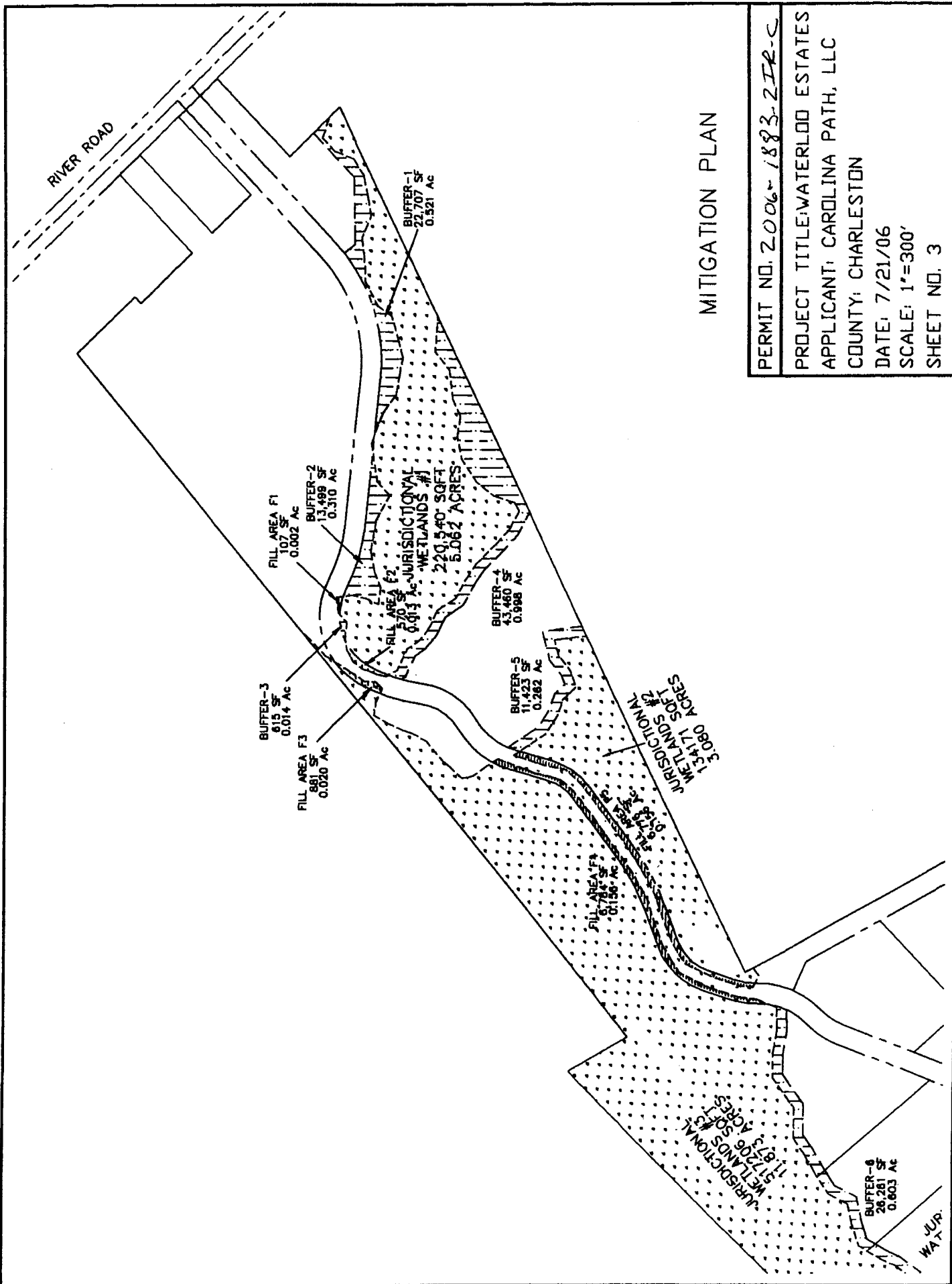
TOTAL WETLANDS 44,941 ACRES

WETLANDS IMPACTED 0.634 ACRES

WETLANDS PRESERVED 44,307 ACRES

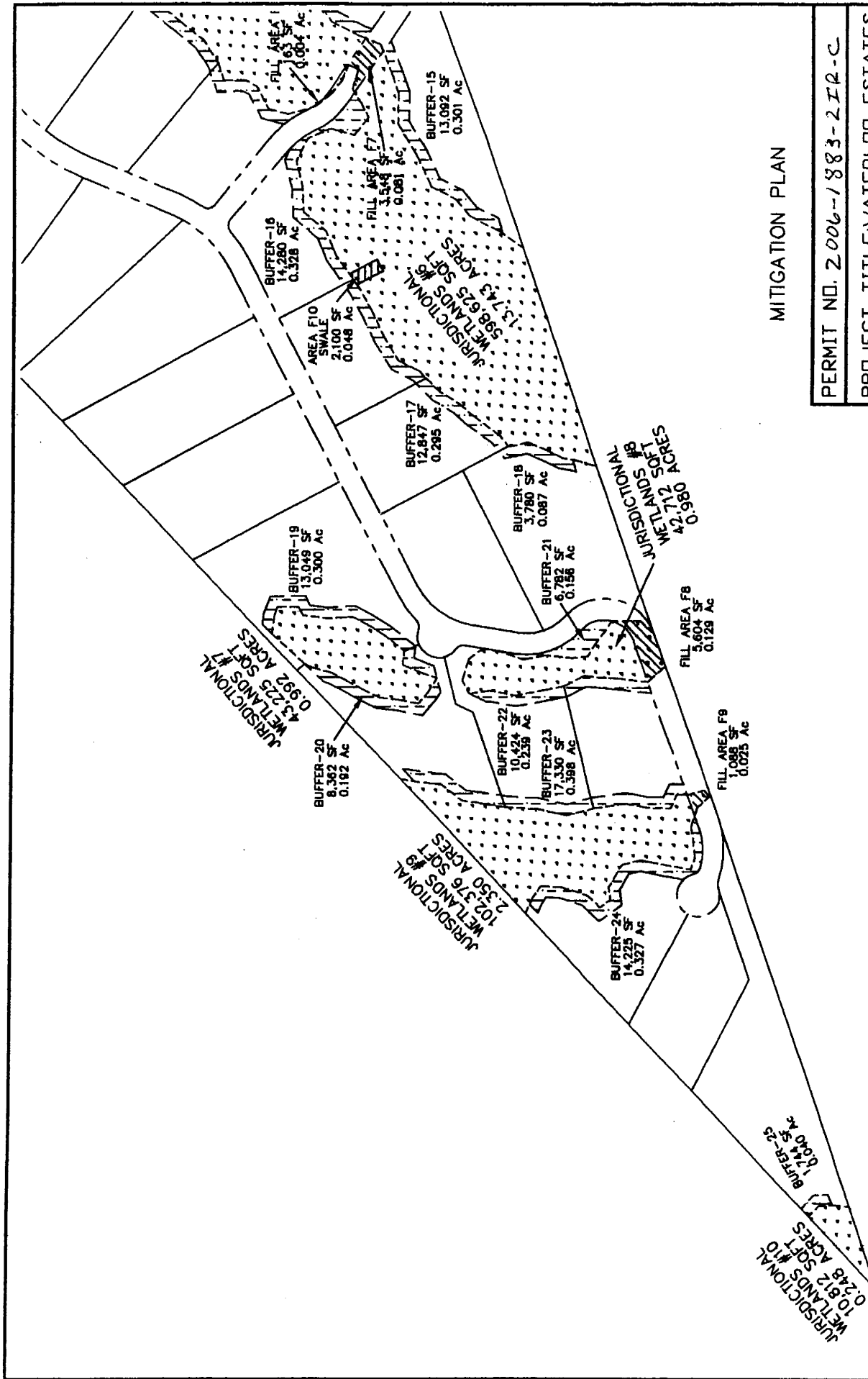
PRESERVED UPLAND BUFFERS 8,903 ACRES





MITIGATION PLAN

PERMIT NO. 2006-1883-2IR-C
PROJECT TITLE: WATERLOO ESTATES
APPLICANT: CAROLINA PATH, LLC
COUNTY: CHARLESTON
DATE: 7/21/06
SCALE: 1"=300'
SHEET NO. 3



MITIGATION PLAN

PERMIT NO. 2006-1883-2IR-C

PROJECT TITLE: WATERLOO ESTATES

APPLICANT: CAROLINA PATH, LLC

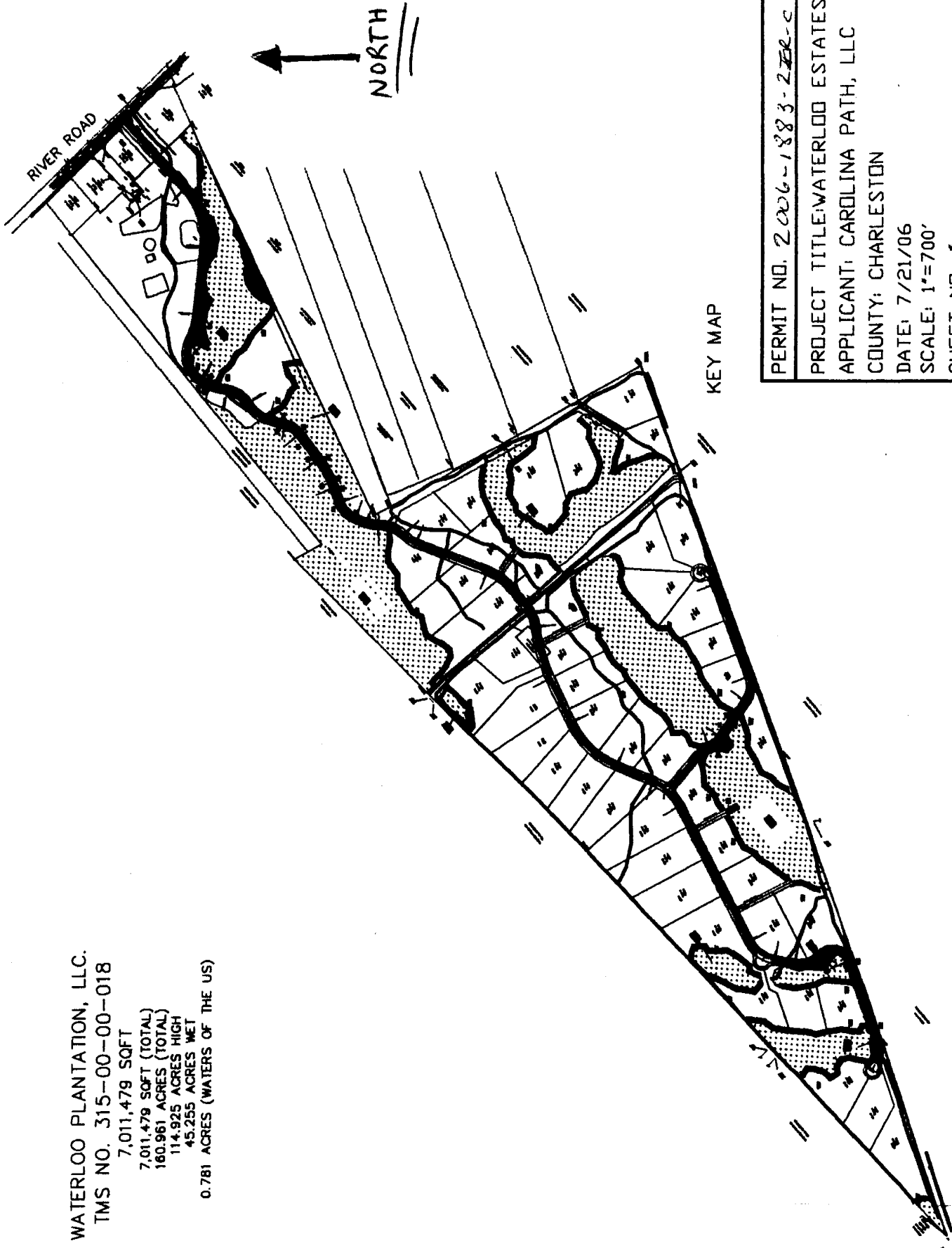
COUNTY: CHARLESTON

DATE: 7/21/06

SCALE: 1"=300'

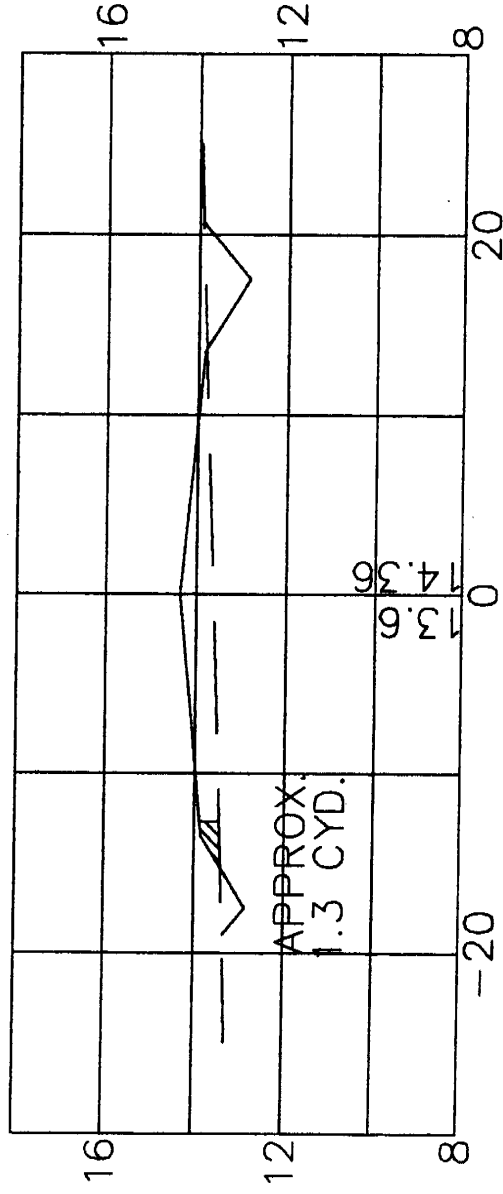
SHEET NO. 5

WATERLOO PLANTATION, LLC.
 TMS NO. 315-00-00-018
 7,011,479 SQFT
 7,011,479 SQFT (TOTAL)
 160,961 ACRES (TOTAL)
 114,925 ACRES HIGH
 45,255 ACRES WET
 0.781 ACRES (WATERS OF THE US)



PERMIT NO. 2006-1883-2ER-C
 PROJECT TITLE: WATERLOO ESTATES
 APPLICANT: CAROLINA PATH, LLC
 COUNTY: CHARLESTON
 DATE: 7/21/06
 SCALE: 1"=700'
 SHEET NO. 6

14+50



CROSS SECTION
CROSSING 1

PERMIT NO. 2006-1883-2IR-C

PROJECT TITLE: WATERLOO ESTATES

APPLICANT: CAROLINA PATH, LLC

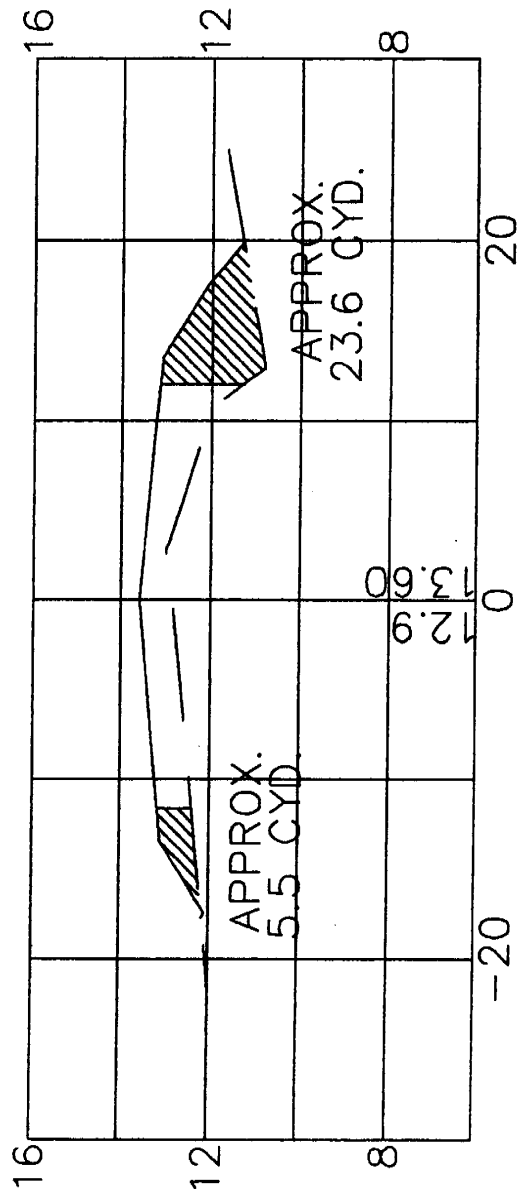
COUNTY: CHARLESTON

DATE: 7/21/06

SCALE: 1"=50'

SHEET NO. 8

16+50



CROSS SECTION
CROSSING 1

PERMIT NO. 2006-1883-212-C

PROJECT TITLE: WATERLOO ESTATES

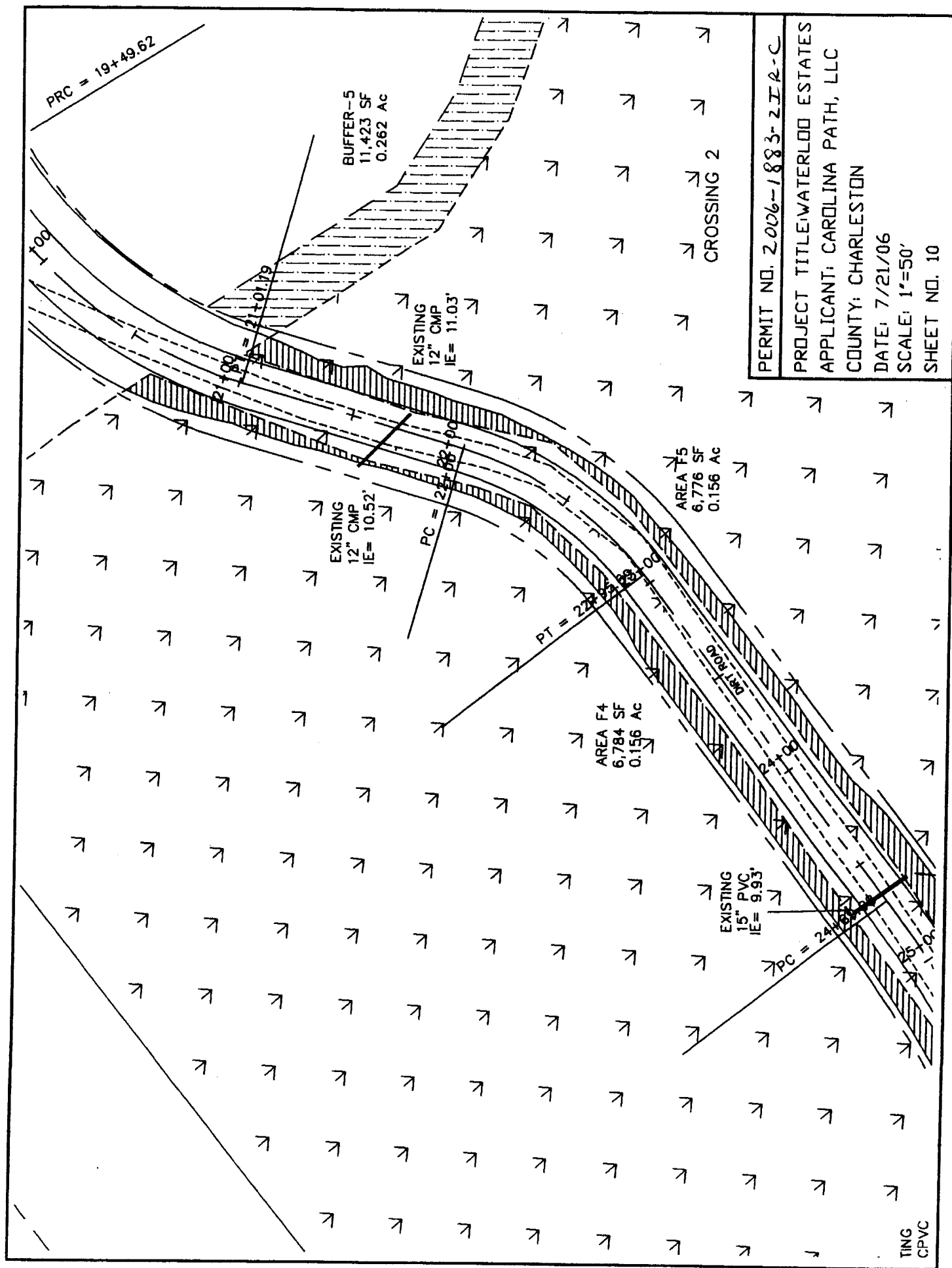
APPLICANT: CAROLINA PATH, LLC

COUNTY: CHARLESTON

DATE: 7/21/06

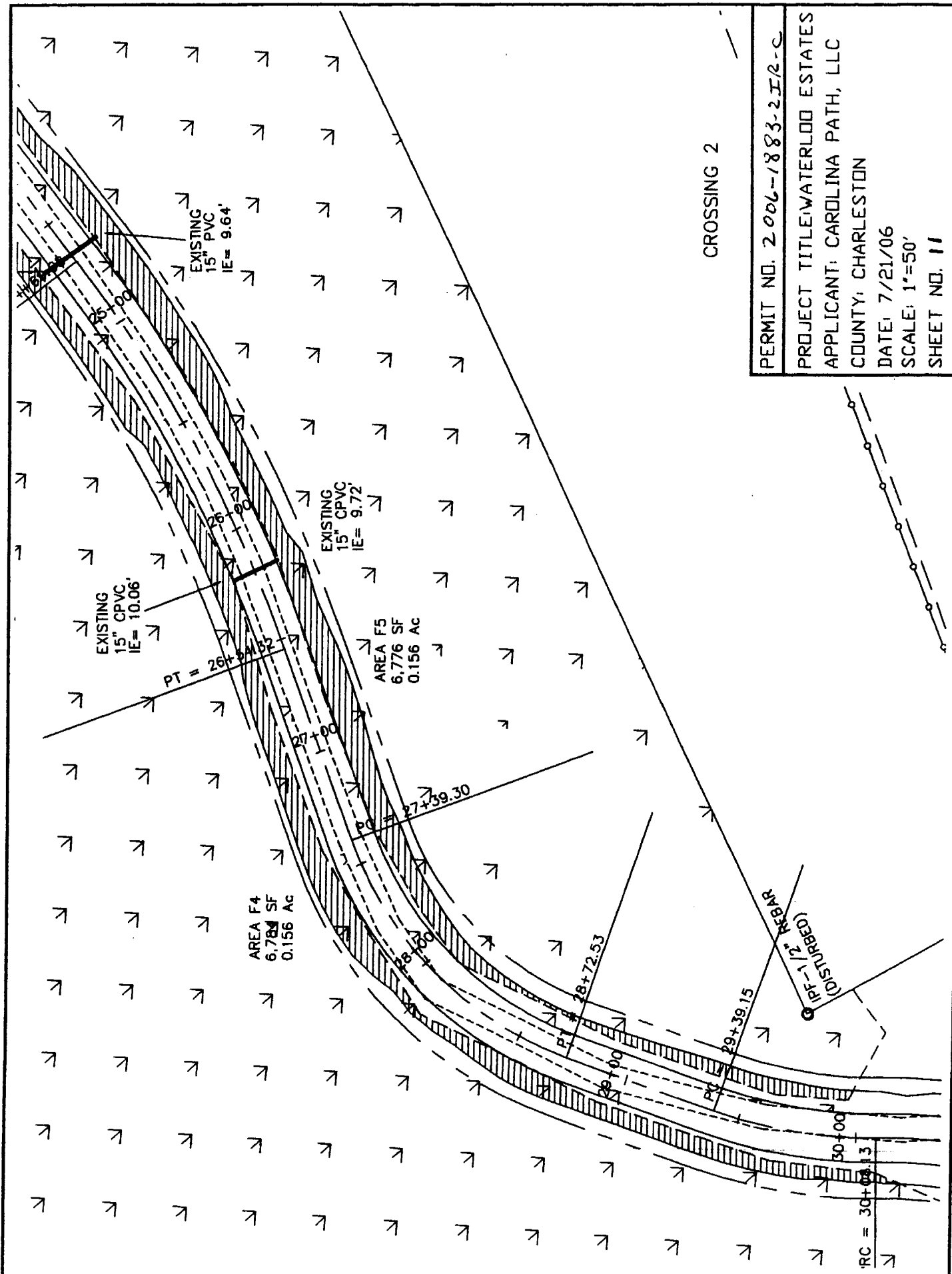
SCALE: 1"=50'

SHEET NO. 9

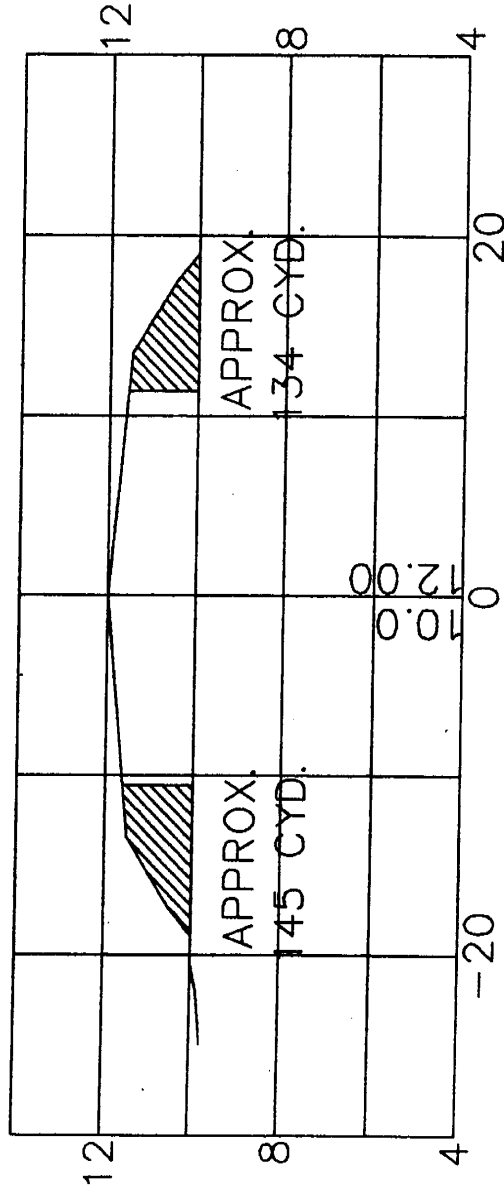


PERMIT NO. 2006-1883-212-C
 PROJECT TITLE: WATERLOO ESTATES
 APPLICANT: CAROLINA PATH, LLC
 COUNTY: CHARLESTON
 DATE: 7/21/06
 SCALE: 1"=50'
 SHEET NO. 11

CROSSING 2



26+00



CROSS SECTION
CROSSING 2

PERMIT NO. 2006-1883-2/P-C

PROJECT TITLE: WATERLOO ESTATES

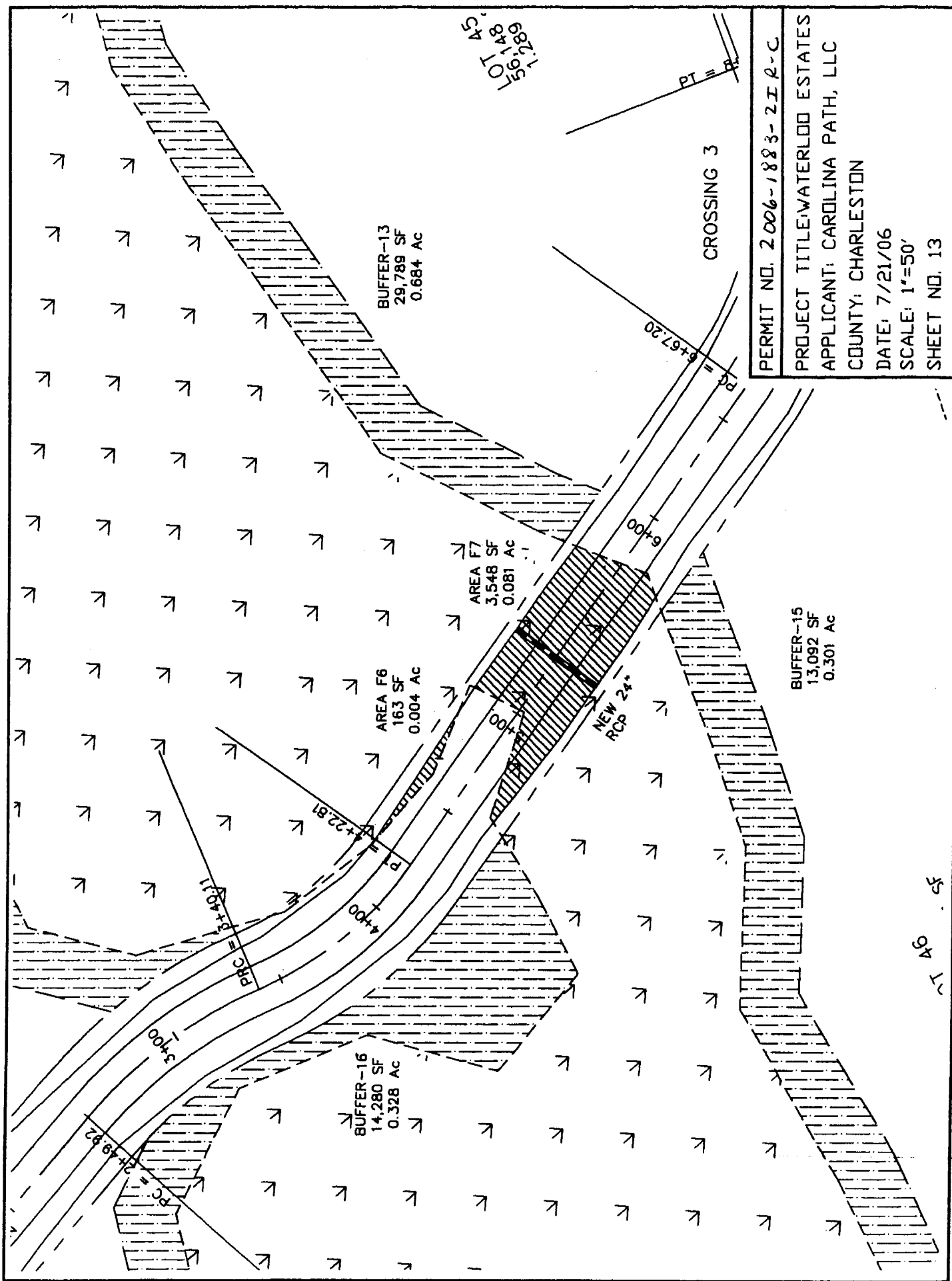
APPLICANT: CAROLINA PATH, LLC

COUNTY: CHARLESTON

DATE: 7/21/06

SCALE: 1"=50'

SHEET NO. 12



PERMIT NO. 2006-1883-2 I R-C
PROJECT TITLE: WATERLOO ESTATES
APPLICANT: CAROLINA PATH, LLC
COUNTY: CHARLESTON
DATE: 7/21/06
SCALE: 1"=50'
SHEET NO. 13

BUFFER-13
29,789 SF
0.684 AC

AREA F7
3,548 SF
0.081 AC

AREA F6
163 SF
0.004 AC

BUFFER-15
13,092 SF
0.301 AC

BUFFER-16
14,280 SF
0.328 AC

45°
01.48
561.289

CROSSING 3

NEW 24' RCP

6+67.20

6+00

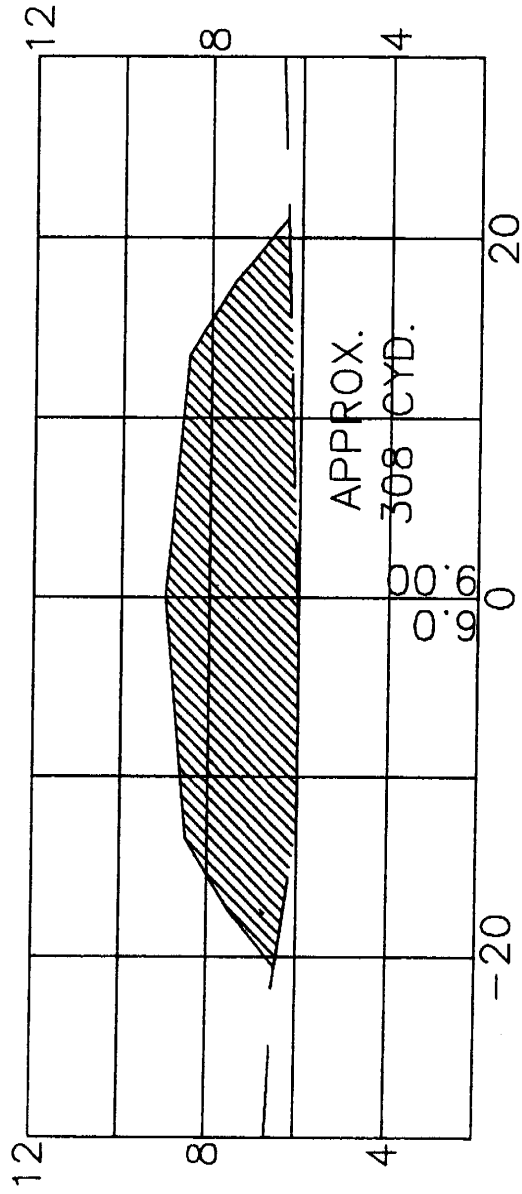
4+00

3+00

2+00

46° 35'

5+50



CROSS SECTION
CROSSING 3

PERMIT NO. 2006-1883-21R-C

PROJECT TITLE: WATERLOO ESTATES

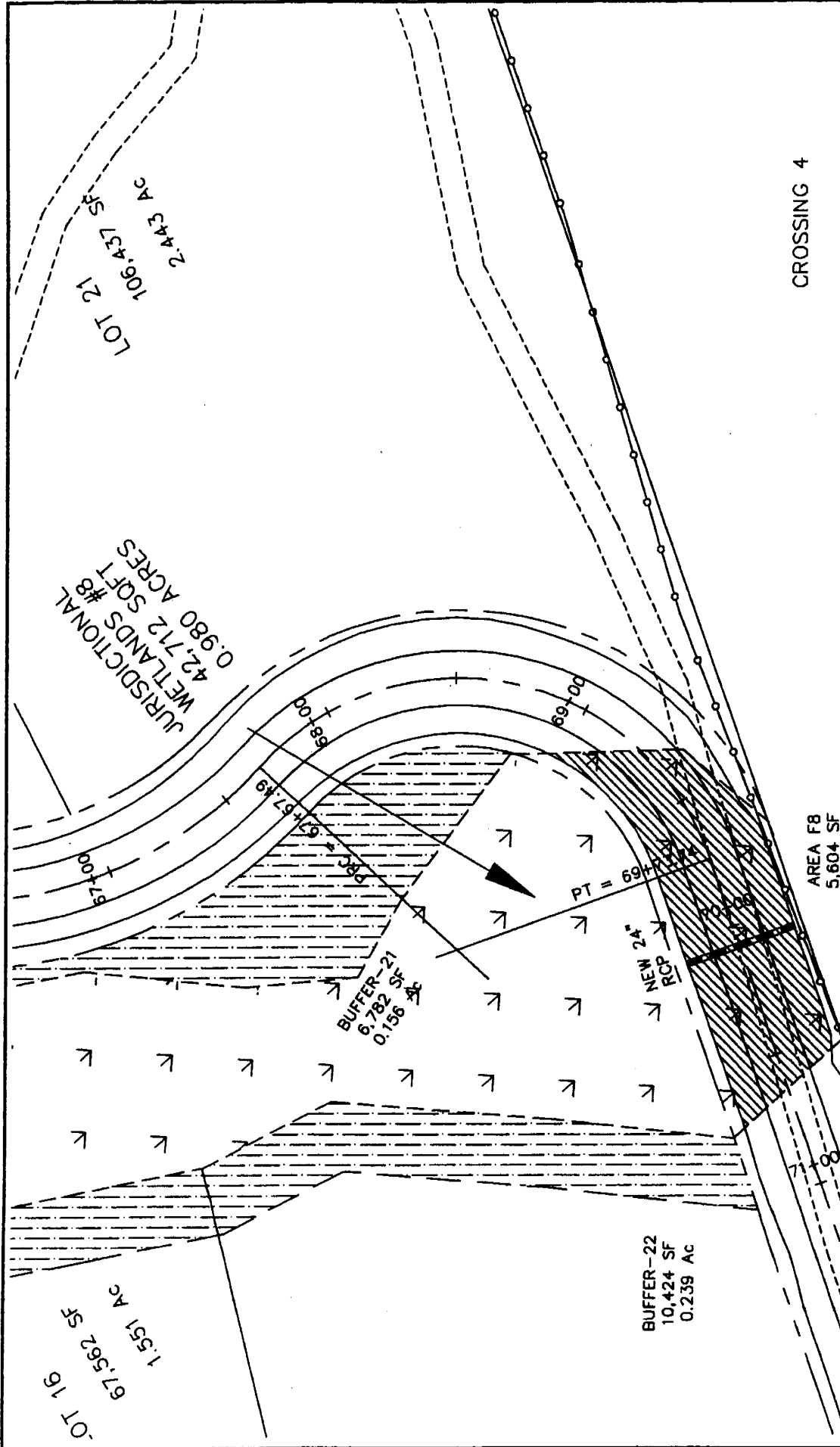
APPLICANT: CAROLINA PATH, LLC

COUNTY: CHARLESTON

DATE: 7/21/06

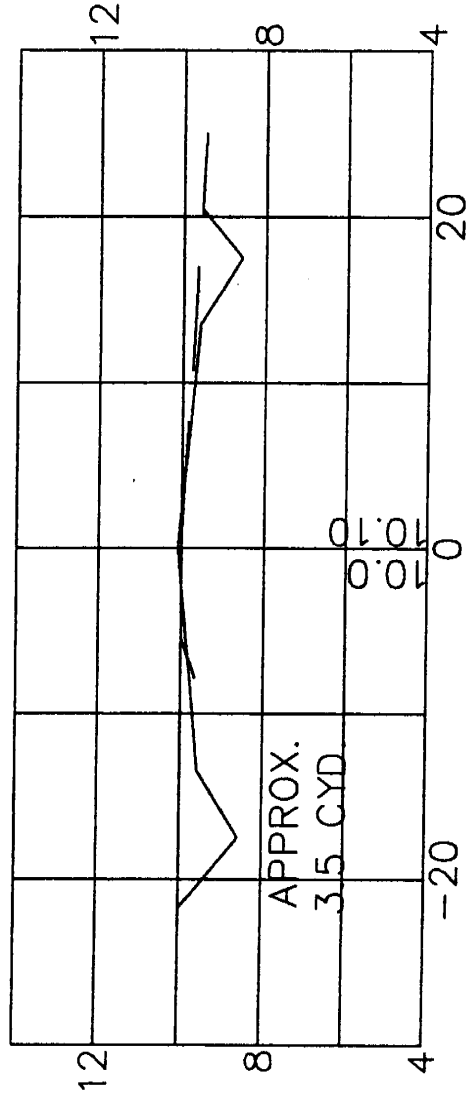
SCALE: 1"=50'

SHEET NO. 14



PERMIT NO. 2006-1883-2JR-C
PROJECT TITLE: WATERLOO ESTATES
APPLICANT: CAROLINA PATH, LLC
COUNTY: CHARLESTON
DATE: 7/21/06
SCALE: 1"=50'
SHEET NO. 15

70+00



CROSS SECTION
CROSSING 4

PERMIT NO. 2006-1883-212-C

PROJECT TITLE: WATERLOO ESTATES

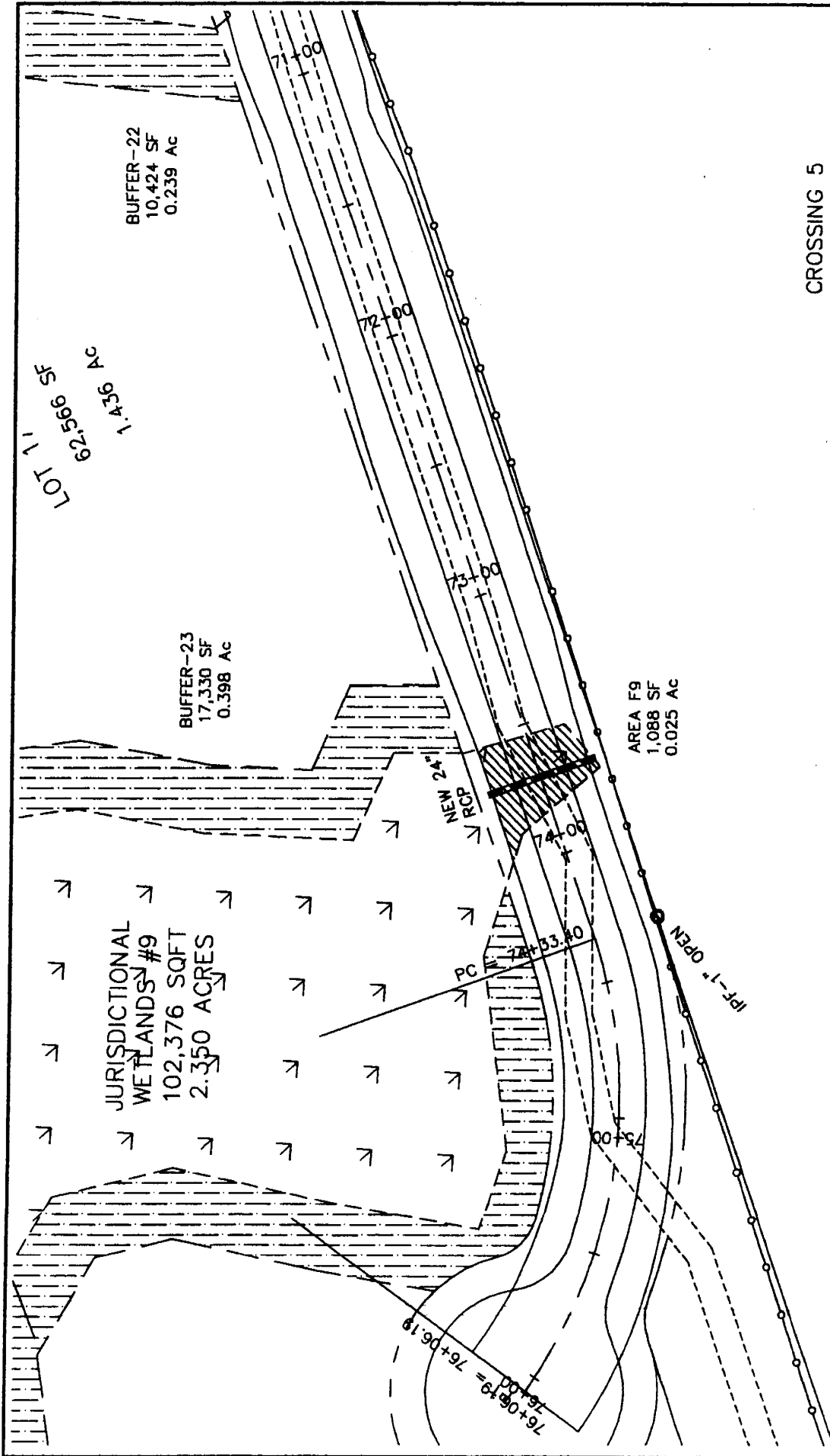
APPLICANT: CAROLINA PATH, LLC

COUNTY: CHARLESTON

DATE: 7/21/06

SCALE: 1"=50'

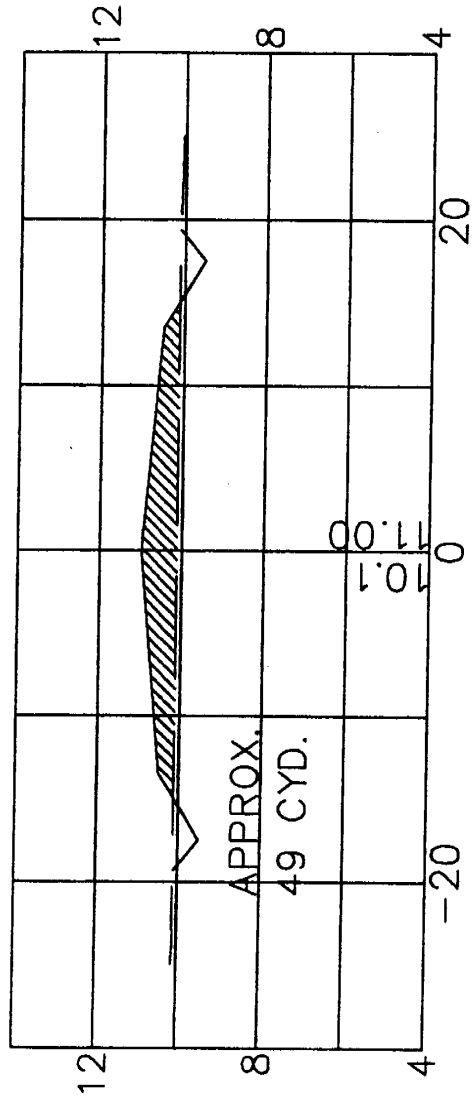
SHEET NO. 16



CROSSING 5

PERMIT NO. 2006-1883-212-C
PROJECT TITLE: WATERLOO ESTATES
APPLICANT: CAROLINA PATH, LLC
COUNTY: CHARLESTON
DATE: 7/21/06
SCALE: 1"=50'
SHEET NO. 17

73+75



CROSS SECTION
CROSSING 5

PERMIT NO. 2006-1883-212-C

PROJECT TITLE: WATERLOO ESTATES

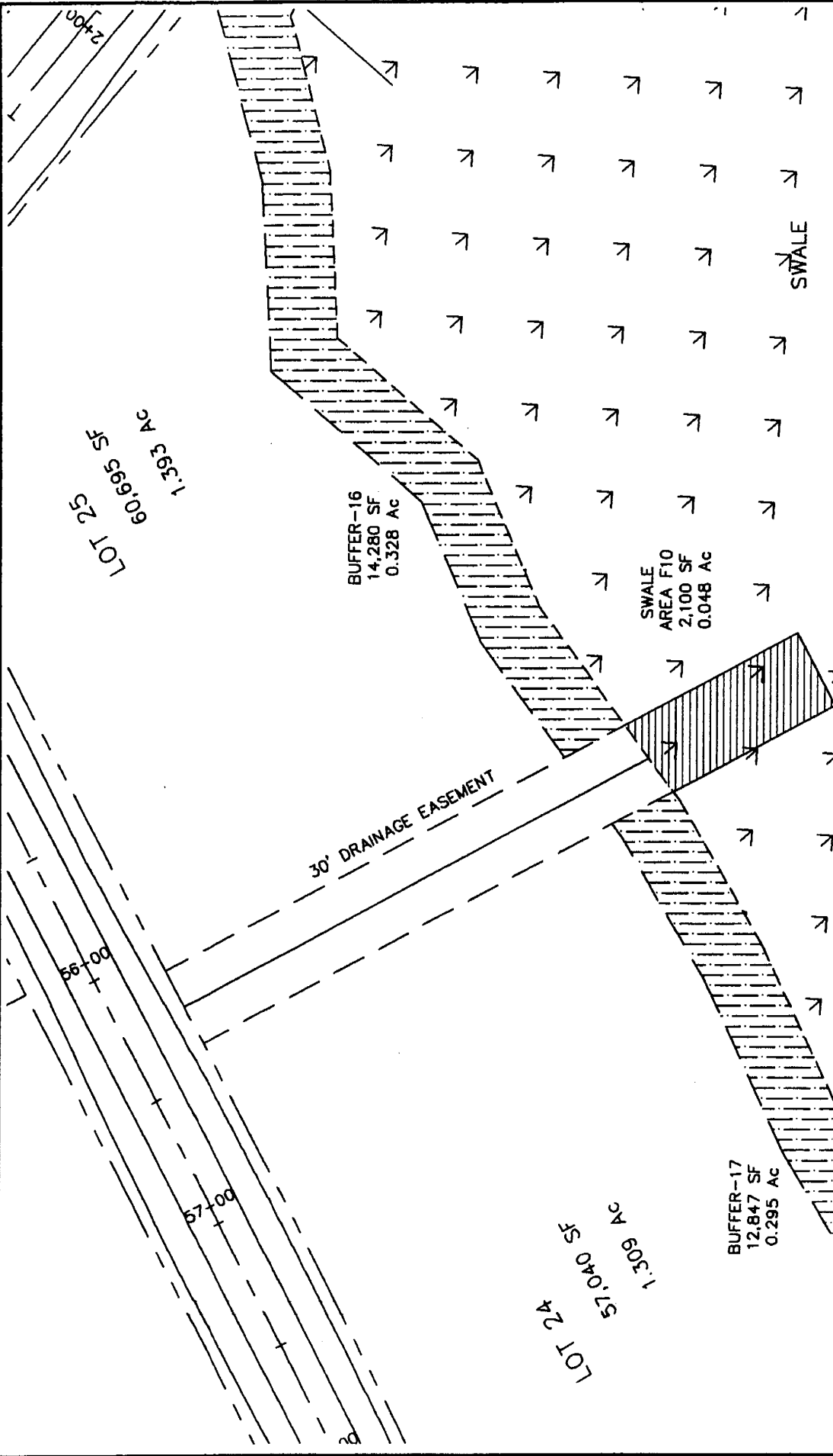
APPLICANT: CAROLINA PATH, LLC

COUNTY: CHARLESTON

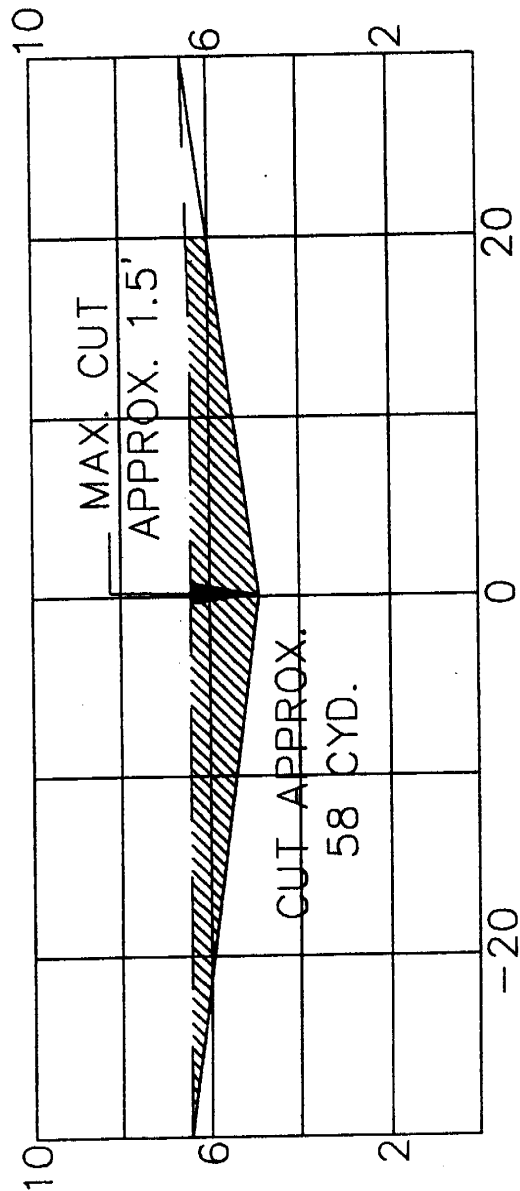
DATE: 7/21/06

SCALE: 1"=50'

SHEET NO. 18



PERMIT NO. 2006-1883-ZI2-C
PROJECT TITLE: WATERLOO ESTATES
APPLICANT: CAROLINA PATH, LLC
COUNTY: CHARLESTON
DATE: 7/21/06
SCALE: 1"=50'
SHEET NO. 19



CROSS SECTION SWALE

PERMIT NO. 2006-1883-2IR-C

PROJECT TITLE: WATERLOO ESTATES

APPLICANT: CAROLINA PATH, LLC

COUNTY: CHARLESTON

DATE: 7/21/06

SCALE: 1"=50'

SHEET NO. 20

Mitigation for Wetlands

14. Tables and Worksheets.

14.1 Adverse Impact Table.

ADVERSE IMPACT FACTORS FOR WETLANDS AND OTHER WATERS OF THE U.S. EXCLUDING STREAMS

FACTORS	OPTIONS					
Lost Type	Type C 0.2		Type B 2.0		Type A 3.0	
Priority Category	Tertiary 0.5		Secondary 1.5		Primary 2.0	
Existing Condition	Very Impaired 0.1	Impaired 1.0		Slightly Impaired 2.0		Fully Functional 2.5
Duration	Seasonal 0.1	0 to 1 0.2	1 to 3 0.5	3 to 5 1.0	5 to 10 1.5	Over 10 2.0
Dominant Impact	Shade 0.2	Clear 1.0	Dredge 1.5	Drain 2.0	Impound 2.5	Fill 3.0
Cumulative Impact	$0.05 \times \Sigma AA_i$					

Note: For the Cumulative Impact factor, ΣAA_i stands for the sum of the acres of adverse impacts to aquatic areas for the overall project. When computing this factor, round to the nearest tenth decimal place using even number rounding. Thus 0.01 and 0.050 are rounded down to give a value of zero while 0.051 and 0.09 are rounded up to give 0.1 as the value for the cumulative impact factor. The cumulative impact factor for the overall project must be used in each area column on the Required Credits Worksheet below.

Required Mitigation Credits Sample Worksheet

Factor	Road Crossings (Fill areas 1-9)	Swale Excavation Area
Lost Type	3.0	3.0
Priority Category	0.5	0.5
Existing Condition	2.5	2.5
Duration	2.0	2.0
Dominant Impact	3.0	1.5
Cumulative Impact	0	0

Sum of r Factors	$R_1 = 11.0$	$R_1 = 9.5$	
Impacted Area	$AA_1 = 0.586$	$AA_1 = 0.048$	
$R \times AA =$	$6.446 \rightarrow 6.5$	$0.456 \rightarrow 0.5$	

Total Required Credits = $\Sigma (R \times AA) =$

7.0

PN# 2006-1883-2IR-C

Mitigation for Wetlands

14.3 Restoration and Enhancement Table.

RESTORATION AND ENCHANCEMENT MITIGATION FACTORS FOR WETLANDS AND OTHER WATERS OF THE U.S. EXCLUDING STREAMS

FACTORS	OPTIONS				
Net Improvement	Minimal Enhancement-----to-----Excellent Restoration				
	0.1				4.0
Control	N.A.	Covenant Private	Covenant POA	Conservation Easement	Transfer Fee Title Conservancy
	0	0.1	0.2	0.4	0.6
Temporal Lag	N.A.*	Over 20	10 to 20	5 to 10	0 to 5
	0	-0.3	-0.2	-0.1	0
Credit Schedule	Schedule 5*	Schedule 4	Schedule 3	Schedule 2	Schedule 1
	0	0.1	0.2	0.3	0.4
Kind	Category 5	Category 4	Category 3	Category 2	Category 1
	-0.1	0	0.2	0.3	0.4
Location	Zone 5	Zone 4	Zone 3	Zone 2	Zone 1
	-0.1	0	0.2	0.3	0.4

N.A. = Not Applicable

*Use this option to calculate credits for enhancement by buffering.

Proposed Restoration or Enhancement Mitigation Sample Worksheet

Factor	Mean 25 – Foot Buffers
Net Improvement	0.1
Control	0.2
Temporal Lag	0
Credit Schedule	0.4
Kind	0.4
Location	0.4

Sum of m Factors	$M_1 = 1.5$
Mitigation Area	$A_1 = 8.903$
$M \times A =$	$13.35 \rightarrow 13.4$

Total Restoration/Enhancement Credits = $\Sigma (M \times A) =$

13.4

PN# 2006-1883-2 IRLC

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SOP Date: September 19, 2002

Mitigation for Wetlands

14.4 Preservation Table.

PRESERVATION MITIGATION FACTORS FOR WETLANDS AND OTHER WATERS OF THE U.S. EXCLUDING STREAMS

FACTORS	OPTIONS				
Priority Category	Tertiary 0.1		Secondary 0.2		Primary 0.4
Existing Condition	Impaired -0.1		Slightly Impaired 0		Fully Functional 0.1
Degree of Threat	Low -0.1		Moderate 0.1		High 0.2
Control	Covenant Private 0		Covenant POA 0.1		Conversation Easement 0.4
Kind	Category 5 -0.1	Category 4 0	Category 3 0.1	Category 2 0.2	Category 1 0.3
Location	Zone 5 -0.1	Zone 4 0	Zone 3 0.1	Zone 2 0.2	Zone 1 0.3

Note: Preservation credit should generally be limited to those areas that qualify as Fully Functional or Slightly Impaired. Impaired sites should be candidates for enhancement or restoration credit, not preservation credit. In special circumstances when Impaired sites are allowed preservation credit (e.g. within the scope of some OCRM wetland master planned projects), a negative factor will be used to calculate credits as per the matrix table.

Proposed Preservation Mitigation Sample Worksheet

Factor	Preservation Areas
Priority Category	0.1
Existing Condition	0.1
Degree of Threat	0.2
Control	0.1
Kind	0.3
Location	0.3

Sum of m Factors	$M_1 = 1.1$
Mitigation Area	$A_1 = 35.404$
$M \times A =$	$38.94 \rightarrow 38.9$

Total Preservation Credits = $\Sigma (M \times A) =$

38.9

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SOP Date: September 19, 2002

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Mitigation for Wetlands

14.6 Mitigation Summary Worksheet.

WETLANDS AND OTHER WATERS OF THE U.S. EXCLUDING STREAMS Mitigation Summary Worksheet For Permit Application # _____

I. Required Mitigation

A.	Total Required Mitigation Credits =	7.0	0.634
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II. Non-Banking Mitigation Credit Summary

	Credits	Acres
B. Creation		
C. Restoration and/or Enhancement (Non-Buffer Enhancement)		
D. Restoration and/or Enhancement (Buffer Enhancement)	13.4	8.903*
E. Total No Net Loss Non-Bank Mitigation = B + C + D	13.4	8.903*
F. Preservation	38.9	35.404
G. Total Proposed Non-Bank Mitigation = E + F	52.3	44.307

III. Banking Mitigation Credit Summary

	Credits	Acres
H. Creation		
I. Restoration and/or Enhancement (Non-Buffer Enhancement)		
J. Restoration and/or Enhancement (Buffer Enhancement)		
K. Total No Net Loss Bank Mitigation = H + I + J		
L. Preservation		
M. Total Proposed Bank Mitigation = K + L		

IV. Grand Totals

	Credits	Acres
N. Total Preservation Mitigation = F + L	38.9	35.404
O. Total Non-Preservation Mitigation = E + K	13.4	8.903
P. Total Creation = B + H		
Q. Total Restoration and/or Enhancement (Non-Buffer Enhancement) = C + I		
R. Total Proposed Mitigation = G + M	52.3	44.307*

* Acreage of wetland enhancement does not include the 8.903 acres of upland buffers to be deed restricted and preserved by the applicant.

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SOP Date: September 19, 2002

Mitigation for Wetlands

The Total Mitigation Credits (Row R) should equal to or greater than the total Required Mitigation Credits (Row A) for the proposed mitigation to be acceptable. The other requirements given in the SOP must also be satisfied, e.g., in the credits column, Row O must equal at least 50% of Row A and the addition of Row P and Row Q must equal at least 25% of Row A. If the answer to any of the questions below is no, then the proposed mix and/or quantity of mitigation is not in compliance with the policy and the plan should be revised or rejected, unless a variance is approved.

	YES	NO
$PMC \geq RMC$ or in words Are the credits in Row R greater than or equal to Row A ?	X	
$PMC_{\text{Non-Preservation}} \geq \frac{1}{2} RMC$ or in words Are the credits in Row O greater than or equal to 50% of Row A ?	X	
$PMC_{\text{Creation + Restoration/Enhancement (Non-Buffer Enhancement)}} \geq \frac{1}{4} RMC$ or in words Are the credits in Row P plus the credits in Row Q greater than or Equal to 25% of Row A ?		X

Applicant is requesting a variance with the requirement of non-buffer enhancement, creation and restoration due to the ratio of credits provided in this plan. The applicant is preserving an acreage ratio of approximately 70 to 1, and a credit ratio of approximately 7.5 to 1.

PNT# 2006-1883-2IR-C

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SOP Date: September 19, 2002